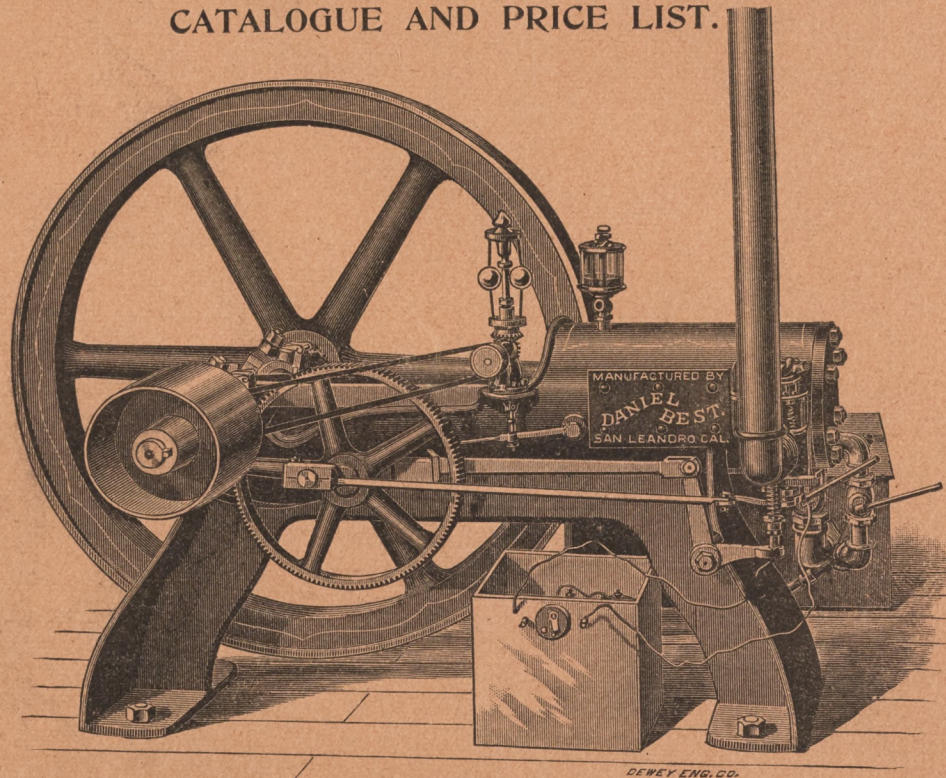


1892-3  
Daniel Best's Gas or Gasoline Engine

CATALOGUE AND PRICE LIST.



DEWEY ENG. CO.

: : : MANUFACTURED BY : : :  
DANIEL BEST AGRICULTURAL WORKS, San Leandro, Cal., U. S. A.



## Introductory.

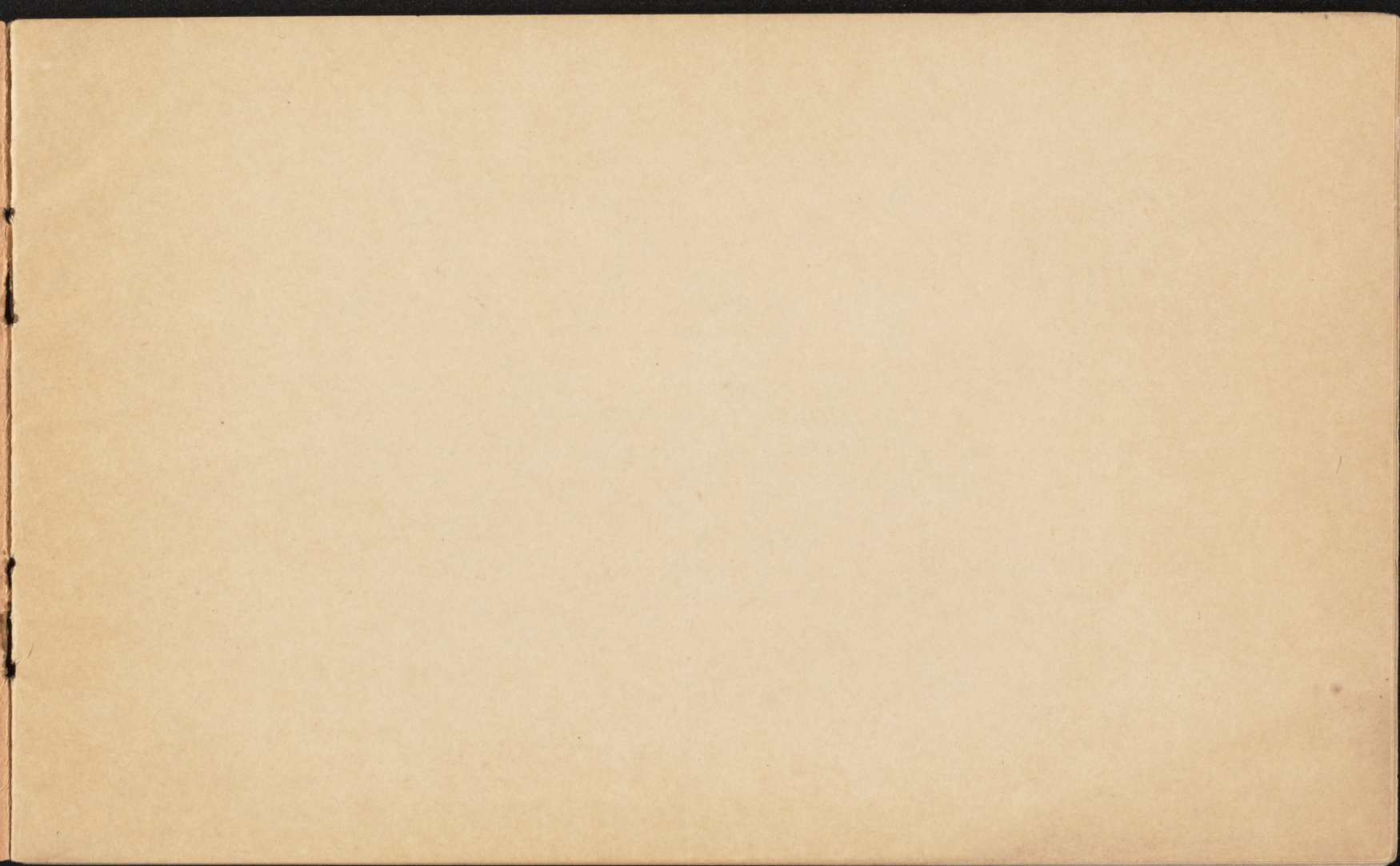
Recognizing the demand for a good and Reliable Gas or Gasoline Engine, prompted us to direct our attention that way; and realizing the great advantages of Gas or Gasoline, as a safe, inexpensive and powerful means of motion, we went to work to see if we could not make a little better attempt at harnessing this comparatively new source of power than has yet been accomplished; and we have succeeded greatly beyond our expectations, having been awarded first premiums at the California State and County Fairs for 1891.

With our one to four movement Spark Device and our way of governing, we develop fully 25 per cent more power than has yet been obtained by any Gas Engine from a given amount of Gas.

In the following pages of this circular we will endeavor to give a full description of the Engine, and full instructions how to set up and operate it will be sent with each Engine.

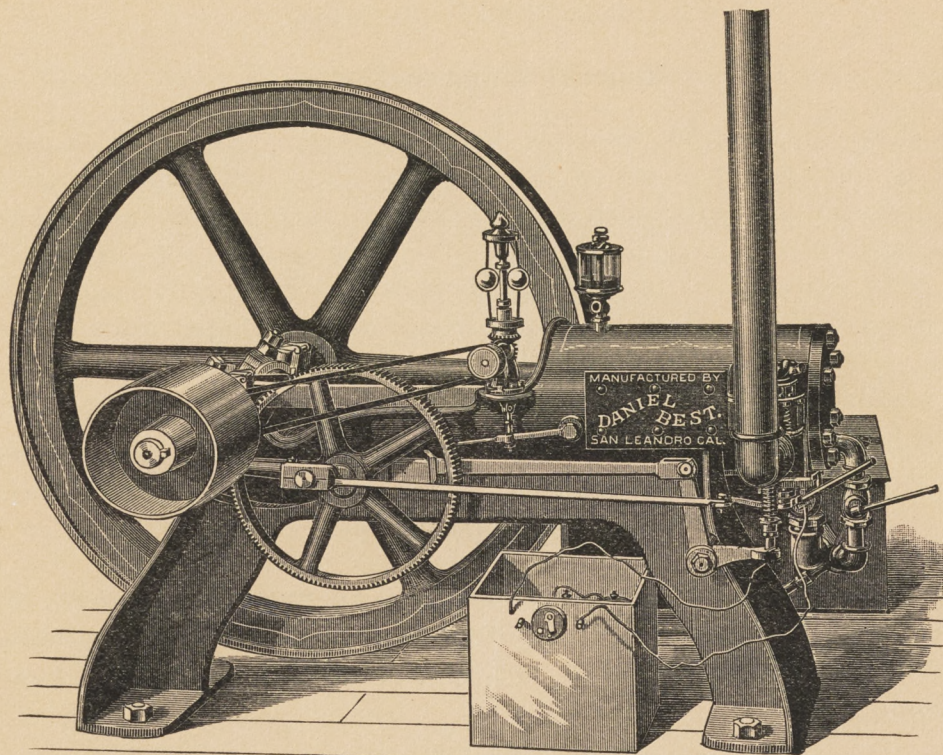
The following illustration represents our one to twelve Horse-Power Engines for either Gas or Gasoline, except the 16 to 40 Horse-Power, which are duplex. See cut on page 7 of this circular.











DEWEY ENG. CO.



## **General Construction.**

As the cuts show, our Engines are of the horizontal type. This style of engine gives the best results. It is much easier to get at the working parts, and for oiling the cylinder. It being horizontal gives the oil a better chance to lubricate it, thereby preventing the cylinder from being cut out for want of oil in the right place—the same as with the Steam Engine. The Fly Wheels are made extra heavy, to give regular motion. The Crank Shafts are made of the best Machinery Steel, and formed with a Steam Hammer, in a shaper made especially for that purpose; and the grain of the steel is fully preserved, and consequently we get the full strength of the metal. The Cylinder Water Jacket and Frame are all one casting, and it is impossible for the Crank Shaft to get out of line.

## **Motive Power.**

The motive power of a Gas or Gasoline Engine is an explosive mixture of gas and air drawn into the cylinder of the engine by the forward stroke of the piston, and closely compressed by the return stroke of the piston, and ignited with an electric spark at the point of highest compression.



## Improved Gas Generator.

Most Gas Engines run well on coal or city gas, but on gasoline they do not give as good satisfaction, on account of the unsteadiness of the supply of gas. When fresh gasoline is put in the carburetter, an abundance of gas is given off at first, and the residue makes gas very slowly: this unsteady supply of gas is bothersome, and also necessitates a high grade and expensive gasoline. We have remedied all of these objections with our new gas *Generator*, and now get better results from low grades of gasoline that cost 8, 10 or 12½ cents per gallon, than from city gas. We vaporize the gasoline drop by drop, and the last drop in a 5 or 100 gallon tank is as rich in gas as the first, and there is no residue to contend with.

Every one knows of the economy of using the exhaust steam to heat the water of a steam engine boiler before it is pumped into the boiler; *i. e.*, the changing of a liquid (gasoline) to a gas produces freezing cold gas, which, when drawn into the cylinder, consumes part of its own force in heating the balance to a point of chemical change. We save the heat (which is power) of the exhaust to vaporize a low grade of gasoline.

There is more gas in a gallon of low grade (50 to 60 deg.) gasoline than there is in a gallon of the high grade 86 deg. gasoline, and it is only a question of a practical way of utilizing the waste heat to make gas of a cheap grade of gasoline, and we have solved that problem by inventing a new *Generator*.

The danger from fire is also reduced to the same basis as city gas, for we connect with a 50 or 100 gallon gasoline Tank, 30 to 100 feet from the Engine.



## Spark Device.

The Spark Device is the most vital of all the parts in connection with a Gas Engine, and this has been the stumbling block with all attempts on an improvement of Gas or Gasoline Engines; and some have abandoned electricity because they could not get a spring that would stand, and they used a flame which is expensive and not satisfactory. There is nothing more certain and inexpensive than the Electric Spark, and we have succeeded in producing a very efficient Spark Device, the spring lasting from four to six months, with no trouble whatever. The shape and movement produce a wipe-spark, and the movement of the spring with a three-eighths bearing surface makes it very durable, and keeps it free from all corrosion; and being set on one to four movement, the result is a good and sure spark. We can also produce the spark at whatever position of the Crank and Piston that we desire, and find we can develop fully twenty-five per cent more power than has yet been obtained from a given amount of gas.

## The Governor.

Each engine is supplied with one of our sensitive Governors, which has direct and instant control over the valves which admit the mixture of gas and air into the Cylinder, and the speed of the engine cannot exceed or fall short of the number of revolutions to which the Governor is set. Should the main belt be suddenly thrown off, or break, there would be no variation in the speed of the engine, as the Governor would immediately cut off the supply of gas to the necessary quantity to cause the engine to run at the proper speed.



## **The Battery.**

We use the Sampson Battery, and send out the cells with the proper amount of Sal-Ammoniac for charging the cells ( $\frac{1}{3}$  lb. to each cell), which needs renewing in two or three months. Full directions for charging and keeping the Battery up will be found printed on each cell. The Cut-off breaks the circuit, so that the Battery is only used when needed, and no oftener; that is, whenever the Governor seats, the Exhaust Valve and Piston acting as pumps draw the mixture of gas and air into the Cylinder, through the Inlet Valve. This saves the Battery, as it is at rest, and building up between the times that it is needed.

## **Sizes of Engines, Material, Workmanship, etc.**

These engines are made from one to forty horse-power. The material used in their construction is of the best, and workmanship not excelled by any, every part being under our personal supervision. Every engine is thoroughly tested before allowed to leave the factory. These engines can be used for Pumping purposes, running Printing Presses, Factories, Elevators, Lathes, Well-Boring, Wood-Working Machinery, Street Cars, and in fact for all purposes requiring an inexpensive power. No boiler, no fire, and no engineer are required to run them. They are always ready.



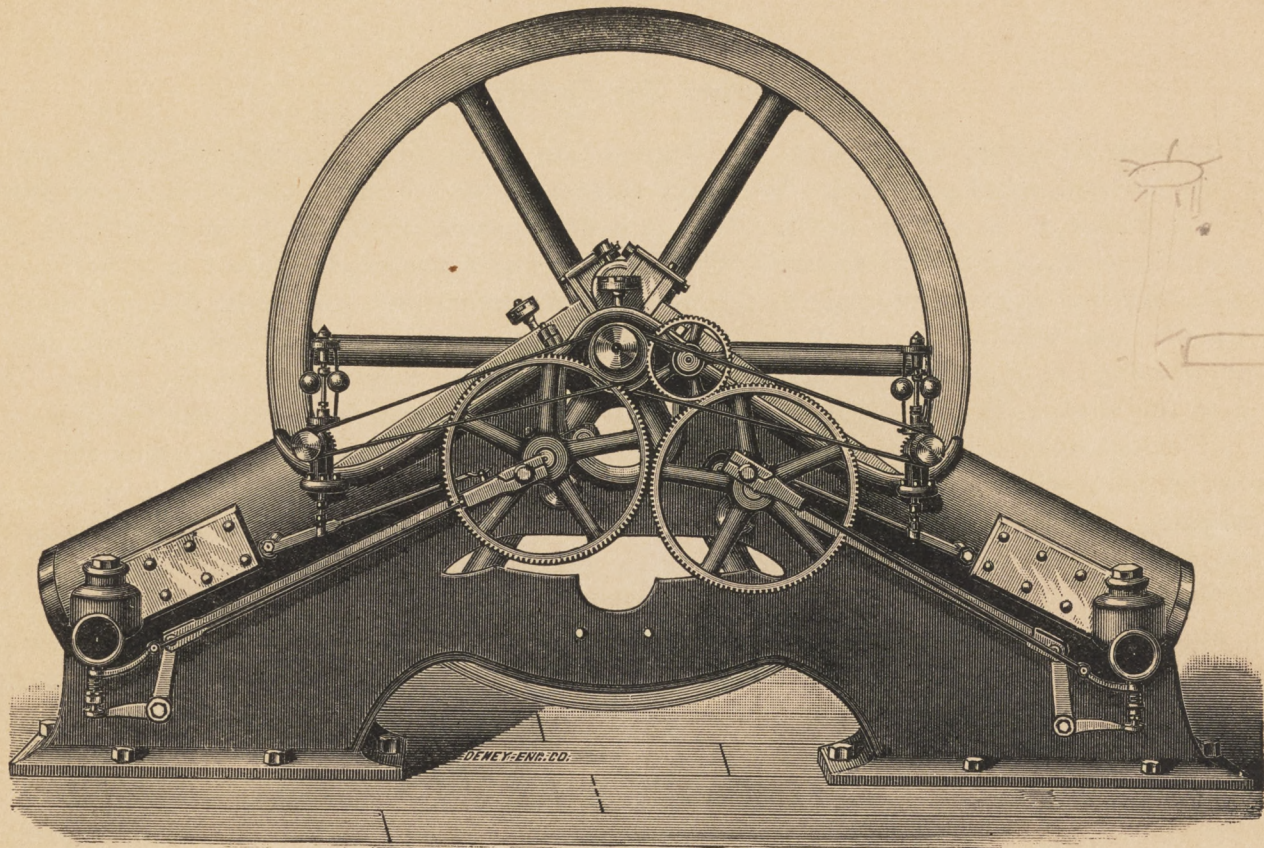
### Running Expense.

The battery should be renewed every four or six months, and will cost about 60c. to renew.

The amount of Coal Gas required is 20 to 25 feet per horse power per hour.

The amount of gasoline required, 1 to 1½ gallons (74 deg.) per horse power per day. This grade of gasoline can be bought in 50 to 100 gallon tanks, at all terminal points, at 12½ cents per gallon. At places where gasoline illuminating gas is made, a low test (60 deg.) gasoline can be bought for about 8 cents per gallon, which will give even better results than stove, or 74 deg. gasoline. This low grade gasoline can also be had from the Santa Paula oil wells.





DANIEL BEST'S STREET CAR MOTOR, 16 HORSE POWER.



## Street Car Motor.

Preceding illustration represents our Duplex Gas or Gasoline Engine, especially designed for street car and other purposes. We make this style in two sizes, 16 and 20 horse-power. An engine like the one shown in the cut is now doing work on a motor car on the San Jose and Alum Rock Park Street Railway. The Cylinders of these engines are 8 in. x 10 in., and when the engines are running 230 to 240 revolutions per minute, they will develop 16 to 18 horse-power, and attain a speed of 8 to 14 miles per hour. About 60 gallons of water are required to keep the engine cool when running, which is stored in a tank on the motor. The speed of the engines is controlled by simple Ball Governors, which operate the Sparking Device. The explosions take place in the Cylinders, whenever the motion falls below the given number of revolutions desired—the range of the Governor being from 150 to 240 revolutions per minute. These Motor Cars can be operated from either end of the car, it not being necessary to turn them on a Turn-table to run in an opposite direction. They are what is termed a Double-ender. This motor can be started or stopped immediately, can be run back or forward, and is under perfect control of the operator; and one or both engines can be brought into action if required, by a simple movement of the reverse Lever, and it is under as perfect control as a steam locomotive. For further particulars, and estimates on one or more of these Motor Cars, please address

DANIEL BEST AGRICULTURAL WORKS,  
San Leandro.



### Price List of Gas or Gasoline Engines.

HORSE-POWER.	NO. REVOLUTIONS.	SIZE OF PULLEY.	FLOOR SPACE.	WEIGHT.	PRICE.
2	250	10 x 8	32 in. x 14 in.	800	\$ 250
3	240	10 x 8	43 in. x 16 in.	1050	300
5	230	10 x 10	50 in. x 16 in.	1450	500
8	230	14 x 10	53 in. x 22 in.	2200	700
10	180	17 x 12	53 in. x 22 in.	2800	850
12	200	17 x 12	53 in. x 22 in.	2850	1000
16	230	17 x 12	60 in. x 19 in.	2950	1200
20	200	24 x 14	60 in. x 19 in.	3600	1450
25	200	24 x 14	60 in. x 19 in.	4000	1700
30					2000
35					2250
40					2500

The above prices are net cash, without discount, and include Driving Pulley, Battery, Gas



Generator or Gas Bag for Coal Gas. *Every engine is thoroughly tested before leaving the factory. Power guaranteed, and every engine warranted.*

Terms—One-half cash, to accompany the order; the balance when engine is set up and running.

The above pulleys are always sent with the Engines. Any other size desired will have to be selected from this list.

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## TESTIMONIALS.

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MR. DANIEL BEST,

Sir :—Your inquiry in regard to the three-horse Gas Engine that you sold me is at hand, and in reply will say that the Engine has been in use nearly a year, sawing wood and pumping water. The Engine is all you claim for it. I have sawed sixteen cords of four-foot mountain oak wood (3 lengths) in ten hours, on not to exceed sixty cents worth of gasoline. I cheerfully recommend the Daniel Best Gas Engine as being the most reliable one in the market. You are at liberty to refer parties wanting an Engine to me.

Yours respectfully,

J. A. TURNBAUGH,  
Madera, Cal.

FRESNO, CAL., March 14th, 1892.

\* \* \* I am using a two-horse Daniel Best Gas Engine for pumping, and I must say that in my opinion it is the best thing of the kind on the market; no trouble, and costs but a trifle to run it. All persons wishing to purchase an Engine are at liberty to come and see the one that I have, and see it work for themselves.

JAS. C. COLLYER.

GUBSERVILLE, CAL., March 26, 1892.

MR. DANIEL BEST, San Leandro.

I approve of your Gasoline Engine; do not know of any better machine on the market. Wishing you success.

Yours truly,  
FRANK GUBSER.



LOS ANGELES, CAL., March 30, 1892.

DANIEL BEST Co., San Leandro,

Gentlemen :—I am using the engine I purchased from you every day. It develops more power than you claim, for it runs steady, and is very economical in its consumption of fuel. I am perfectly satisfied with it.

Yours truly,

FRANK E. OLDS.

SALINAS CITY, CAL., March 28, 1892.

DANIEL BEST, ESQ., San Leandro.

The ten-horse-power Gas Engine you sold us last December is a perfect success. It is always ready for action, and has lots of power. It is so convenient in our business that we would not be without one now for twice what this one cost.

Yours truly,

IVERSON BROS.

LOS ANGELES, CAL., March 30, 1892.

MR. DANIEL BEST, San Leandro, Cal.

Dear Sir :—We have given your three-horse-power Gasoline Engine a thorough test, and take great pleasure in recommending it to all who want a cheap and thoroughly reliable power. We are running two large engine lathes, a wood turning lathe, a heavy emery grinder, two drill presses, and a 24-inch blacksmith blower, all of which the engine handles with ease, at a cost of less than fifty cents ( $3\frac{1}{2}$  gallons low grade gasoline) per day of nine hours. We would advise any one wanting power to examine into the merits of the "*Best*."

Respectfully yours,

MANN & JOHNSON.

LOS ANGELES, CAL., March 31, 1892.

DANIEL BEST, ESQ., San Leandro, Cal.

Dear Sir :—We take pleasure in announcing to you that the Gas Engine of your manufacture placed in our establishment some eight months ago has given entire satisfaction. It is simple, economical, and reliable. We cannot recommend it too highly to those in need of a similar engine.

Very respectfully,

FRANKLIN PRINTING CO.



MOUNTAIN VIEW, Apr. 7th, 1892.

MR. DANIEL BEST,

Dear Sir :—Since I purchased your Gasoline Engine, nearly a year ago, I have never been annoyed for the want of water, as heretofore, when I ran two windmills and a horse power. Some days I need 10,000 gallons of water supply. It takes the water from a creek to the tank, an elevation of 100 feet. I am very much pleased with it.

Respectfully yours,  
R. HENEY, JR.

LOS ANGELES, CAL., April 2d, 1892.

DANIEL BEST, ESQ.

Dear Sir :—I congratulate you on making the very best Gas Engine that I have ever seen. The one I got of you about six months ago gives good satisfaction, and I could not do without it now, and I can safely recommend them to anybody. You can use my name, or direct anyone to my Pipe Works, and I will gladly show them how money is saved by a good Gas Engine.

Wishing you great success in your business, I am

Yours truly,  
J. F. HOLBROOK.

PASADENA, CAL., April 14th, 1892.

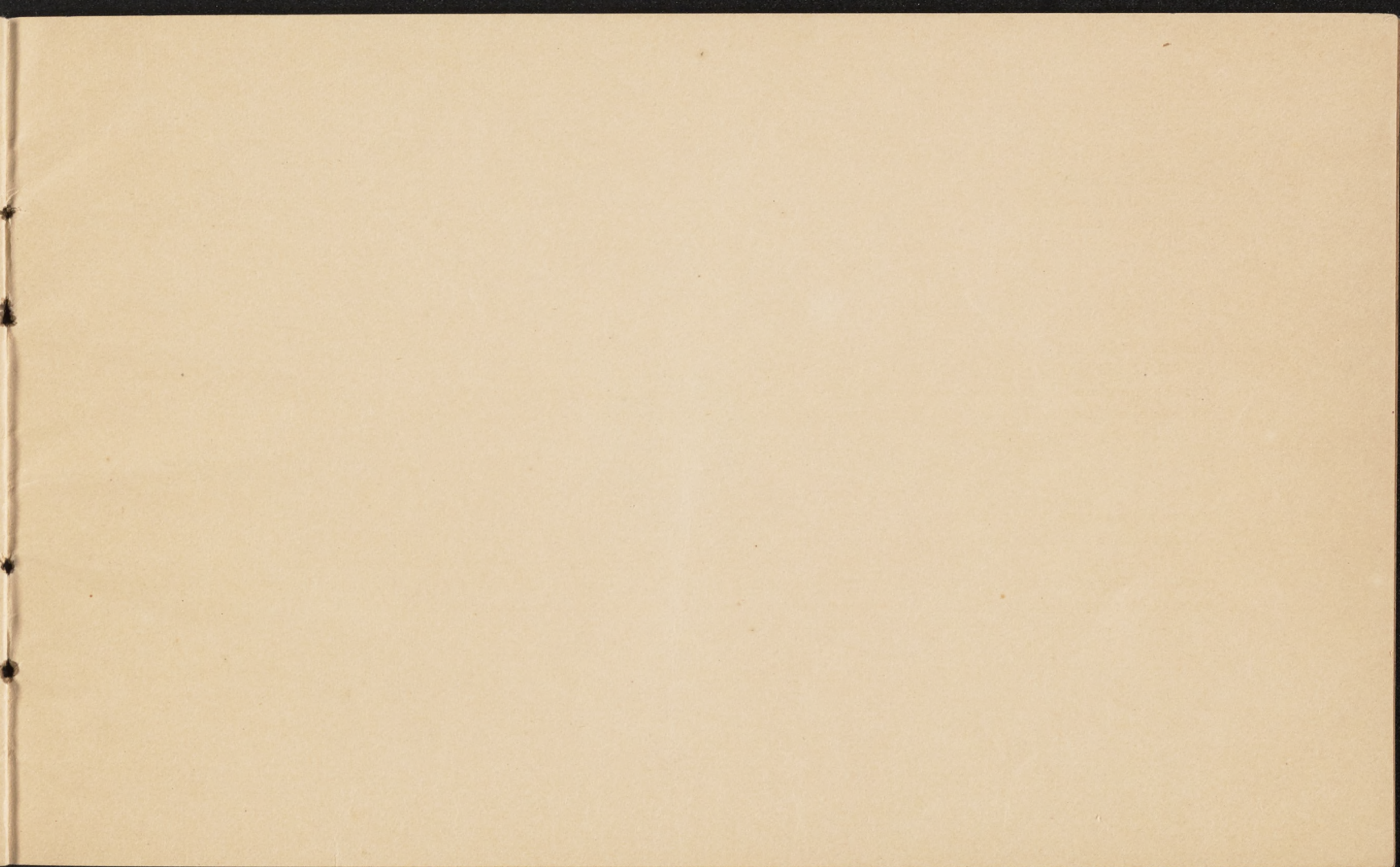
MESSRS. CRAWFORD & JOHNSON,

Agts. DANIEL BEST GAS ENGINES, Los Angeles.

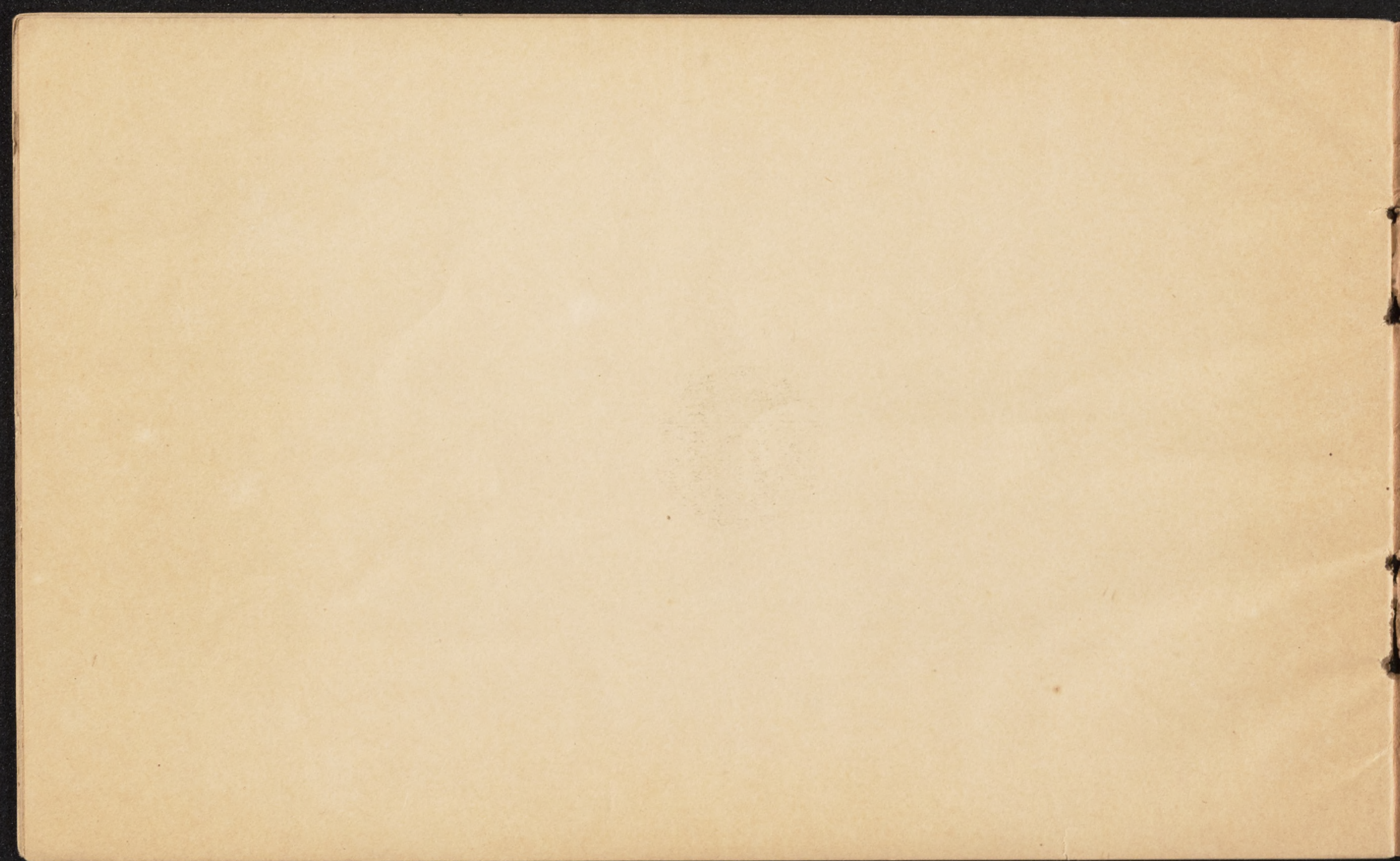
Gentlemen :—\* \* \* The Daniel Best 8 horse-power Gas Engine I purchased of you is, without doubt, the best in the market. Any of my men can handle it without trouble ; it furnishes power for 3 Lathes, Planer, Band Saw (large size), Rip Saw, Boreing Machine, Grind Stone, Emery Wheels, etc., at a cost of \$1.50 to \$2.00 per day for city gas.

Very Respectfully,  
WAKELY'S NOVELTY WORKS,  
Pasadena, Cal.





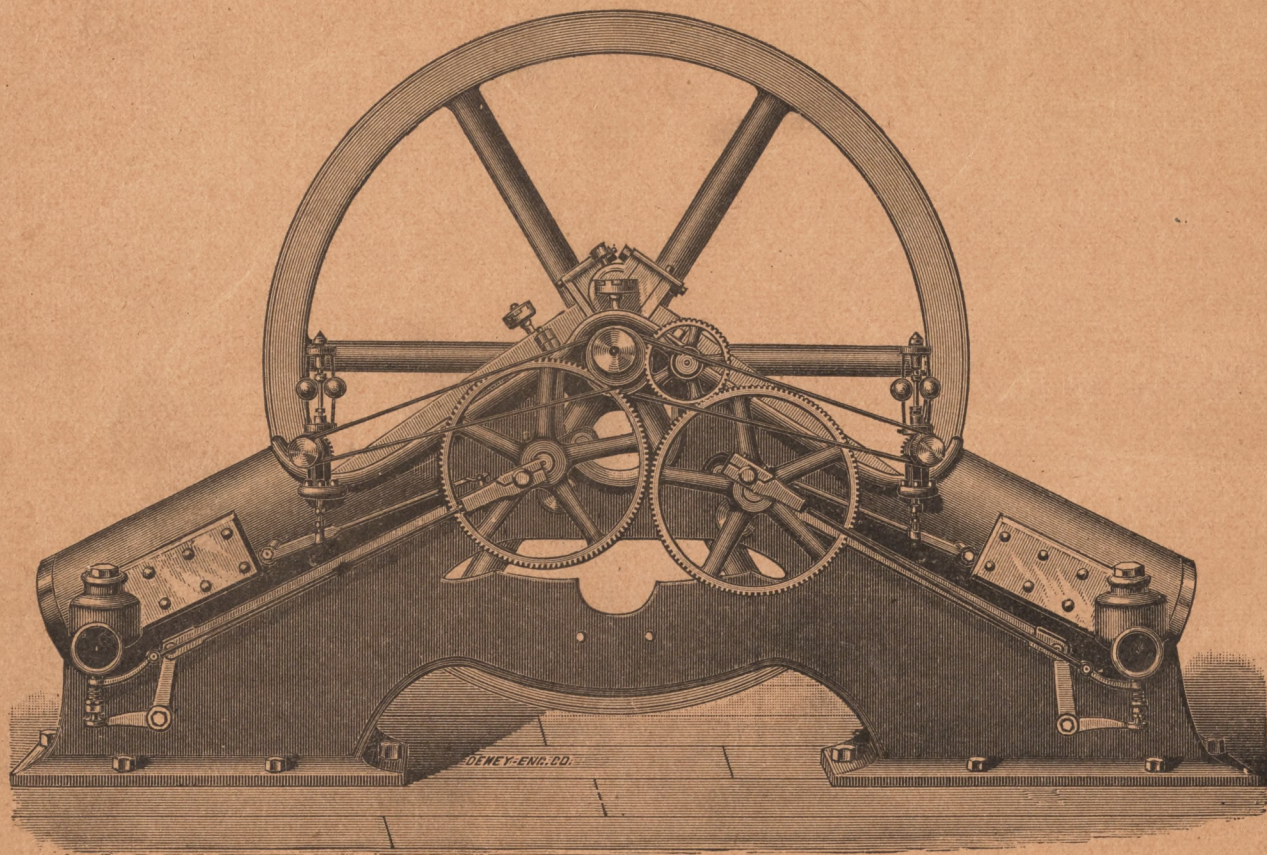












DANIEL BEST'S STREET CAR MOTOR, 16 HORSE POWER.